We claim:

1.   A method for allocating an address in an integrated network comprising at least one zero-configuration network component and configured network, said method comprising the steps of:

obtaining address reachability information relating to said configured components;

automatically allocating a network address that avoids an address conflict with reachability information obtained from said configured components; and

providing said allocated address to a routing protocol serving said configured network components.

2.   The method of claim 1, wherein said address reachability information relating to said configured components is obtained by surveillance of a routing protocol.

3.   The method of claim 1, wherein said address reachability information relating to said configured components is imported from an address allocation mechanism serving said configured network components.

4.   The method of claim 1, wherein said step of automatically allocating a network address comprises allocating an IP address to a zero-configuration network component.

5.   The method of claim 1, wherein said step of automatically allocating a network address comprises allocating an IP subnet prefix to a zero-configuration network component.

6.   The method of claim 1, comprising the further step of detecting address collisions in said integrated network.

7.   A communication network comprising a plurality of network components including at least one configured component having a manually configured address and at least one zero-configured component, wherein an address automatically allocated to said at least one zero-configured component

5   does not conflict with said manually configured address.

8.   The communication network of claim 7, wherein address reachability information relating to said at least one configured component is imported from a routing protocol in said network.

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9.   The communication network of claim 8, wherein said routing protocol comprises a protocol selected from the group consisting of:

Integrated Intermediate System To Intermediate System (ISIS);

Routing Information Protocol (RIP); and

15   Open Shortest Path First (OSPF).

10.   The communication network of claim 7, wherein said manually configured address is imported from an address allocation mechanism in said network.

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11.   The communication network of claim 10, wherein said address allocation mechanism comprises a protocol selected from the group consisting of:

Dynamic Host Configuration Protocol (DHCP); and

25   Bootstrap Protocol (BOOTP).

12.   The communication network of claim 7, wherein said automatically allocated address is provided to said at least one configured component and said at least one zero-configured component via a network

30   routing protocol.

13. The communication network of claim 7, wherein said automatically allocated address is selected from the group consisting of:

a unique IP address; and

an IP subnet prefix.

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14. The communication network of claim 7, wherein said at least one zero-configured component comprises a zero-configuration router.

15. An apparatus for automatically allocating a unique network
10 address in a network, said network comprising components having manually allocated network addresses, said apparatus comprising:

a communications interface for obtaining and providing reachability information relating to components in said network; and

at least one processor for automatically selecting and allocating
15 a network address that is different to manually allocated network addresses in said network and for providing information relating to said automatically allocated network address to a routing protocol serving said network.

20 16. The apparatus of claim 15, wherein said reachability information is obtained from a routing protocol in said network.

17. The apparatus of claim 15, wherein said reachability information is obtained from an address allocation mechanism in said network.

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18. The apparatus of claim 15, wherein said automatically allocated network address comprises an IP subnet prefix.

19. The apparatus of claim 15, wherein said at least one
30 processor detects address collisions in said network.

20.   The apparatus of claim 15, wherein said apparatus is a zero-configuration router.